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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/032,479	01/02/2002	Robert Hofner	Q67498	5590

23373 7590 03/07/2005
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EXAMINER

NGUYEN, THU HA T

ART UNIT PAPER NUMBER

2155

DATE MAILED: 03/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/032,479

Applicant(s)

HOFNER ET AL.

Examiner

Thu Ha T. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 January 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-125 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-125 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-125 are presented for examination.
2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Objections

3. Claim 111 is objected to because of the following informalities: Claim 111 recited "The computer system of claim 78". Claim 111 claimed a computer system, while claim 78 claimed a computer software product. Thus, claim 111 cannot depend on claim 78. Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-13, 17-18, 21-26, 29, 31-40, 44-48, 51-60, 62, 64-72, 76-80, 83-92, 94, 96-104, 108-112, and 115-124 are rejected under 35 U.S.C. § 102(e) as being anticipated by **Fairchild et al.** (hereinafter Fairchild) U.S. Patent No. 6,343,320.

6. As to claim 1, **Fairchild** teaches the invention as claimed, including a network for distributing news messages comprising:

at least two agents, each of said agents executing on a node, and each agent capable of distributing news messages between said nodes and capable of receiving news messages from other agents (abstract, figures 3-4, col. 8, lines 5-23, col. 11, lines 31-55, col. 12, lines 14-19, col. 13, lines 12-col. 14, lines 40);

at least two news loggers (figure 3, col. 10, lines 47-51, col. 15, lines 39-41 [*there is one or more management server (read as news loggers) are provided*]);

a first communications link coupled between said agents and a second communications link coupled between said news loggers and said agents (figure 3, elements 304, 306, 308 and 310, col. 10, lines 20-55).

7. As to claim 2, **Fairchild** teaches the invention as claimed, wherein said news messages comprise at least one message generated by a process executing on said node (col. 8, lines 5-23, col. 12, lines 14-58).

8. As to claim 3, **Fairchild** teaches the invention as claimed, wherein said news messages are at least one of an error message, a failover message, a synchronization message and a hardware message (col. 8, lines 5-23, col. 11, lines 31-40, col. 12, lines 14-58).

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9. As to claim 4, **Fairchild** teaches the invention as claimed, wherein said node is at least one of a computer host, a computer server, a storage node, a file-system, a location independent file system and a geographically distributed computer system (col. 10, lines 14--29)

10. As to claim 5, **Fairchild** teaches the invention as claimed, wherein said news logger is a process executing on said node (col. 8, lines 5-23, col. 12, lines 14-58).

11. As to claim 6, **Fairchild** teaches the invention as claimed, wherein said news logger process further comprises a database for the purpose of backup of said news messages (figure 1, database 128, col. 9, lines 36-61).

12. As to claim 7, **Fairchild** teaches the invention as claimed, wherein said news loggers are used for synchronizing between said agents (col. 19, lines 61-col. 20, lines 30, col. 23, lines 24-43).

13. As to claim 8, **Fairchild** teaches the invention as claimed, wherein said first communications link and said second communications link are at least one of a local area network (LAN), a wide area network (WAN), a peripheral component interconnect (PCI) network, and an InfiniBand network (col. 10, lines 14-29).

14. As to claim 9, **Fairchild** teaches the invention as claimed, wherein said first communications link and said second communications link are based on at least one of a multicast protocol, a unicast protocol and a broadcast protocol (col. 13, lines 40-49).

15. As to claim 10, **Fairchild** teaches the invention as claimed, wherein said agent further comprises: a subscription database; a news service; a distribution unit; and a news environment (figure 4, col. 11, lines 31-55, col. 13, lines 12-39).

16. As to claim 11, **Fairchild** teaches the invention as claimed, wherein said news messages are saved in said subscription database (figure 4, col. 11, lines 31-55, col. 13, lines 12-39).

17. As to claim 12, **Fair** teaches the invention as claimed, wherein said news environment comprises: an initialization thread; a receiving thread; a sending thread; and a synchronization thread (figure 4, col. 11 lines 31-col. 13, lines 48 [*the agent in each NPD has a capability to initialize, receive, send and update network monitoring information and status*]).

18. As to claim 13, **Fairchild** teaches the invention as claimed, wherein said subscription database is stored on at least one of a RAM memory, a flash memory, a cache memory, a disk, and a hard disk (figure 4, col. 11, lines 31-55). This feature

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deems to be inherent since **Fairchild** discloses the network participating device (NPD) having a database to store event message, thus it has to have a memory to store that event message.

19. As to claim 17, **Fairchild** teaches the invention as claimed, wherein said distributing news messages further comprises:

checking the validity of said news messages (col. 13, lines 12-48, col. 19, lines 10-25 [*checking/detecting which type of beacon messages belong to and whether the beacon message is from new NPD or old NPD*]);

saving valid news messages in said subscription database (col. 13, lines 12-39 [*saving/storing message in MST 405*]);

sending said valid news messages to said news loggers (col. 19, lines 10-25 [*sending a consolidated status information to management server*]);

waiting for an acknowledgement signal from said news loggers (col. 9, lines 16-35);

sending said valid news messages to designated agents (col. 11, lines 31-55, col. 12, lines 14-19, col. 13, lines 12-col. 14, lines 40).

20. As to claim 18, **Fairchild** teaches the invention as claimed, wherein checking the validity of said news messages comprises checking if the news message was received from a known process or checking if the news message is a duplicate of a

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previously received message (col. 27, lines 25-46).

21. As to claim 21, **Fairchild** teaches the invention as claimed, wherein said agents wait for an acknowledgement signal from said news loggers for a predetermined amount of time (col. 1, lines 50-64).

22. As to claim 22, **Fairchild** teaches the invention as claimed, wherein a unicast protocol is used for sending said valid news messages to said news loggers (col. 11, lines 56-col. 12, lines 13).

23. As to claim 23, **Fairchild** teaches the invention as claimed, wherein a multicast protocol is used for sending said valid news messages to designated agents (col. 11, lines 31-55, col. 12, lines 4-13).

24. As to claim 24, **Fairchild** teaches the invention as claimed, wherein receiving news messages comprises:

checking the validity of incoming news messages (col. 13, lines 12-48, col. 19, lines 10-25 [*checking/detecting which type of beacon messages belong to and whether the beacon message is from new NPD or old NPD*]));

passing valid news messages to said distribution unit (col. 12, lines 14-col. 13, lines 48); and

distributing said valid news messages to said processes (col. 19, lines 10-25).

25. As to claim 25, **Fairchild** teaches the invention as claimed, wherein checking the validity of incoming news messages comprises checking if the news message was received from a known process or checking if the news message is a duplicate of a previously received message (col. 27, lines 25-46).

26. As to claim 26, **Fairchild** teaches the invention as claimed, wherein distributing said valid news messages to said processes comprises:

searching said database for processes who requested said news messages (figure 2, col. 9, lines 1-61); and

27. sending said valid news messages to said requesting processes (col. 6, lines 25-61, col. 9, lines 36-61).

28. As to claim 29, **Fairchild** teaches the invention as claimed, including a method for handling news messages using a network comprising of at least two agents, wherein each agent executes on a node, and at least two news loggers (abstract, figures 3-4, col. 8, lines 5-23, col. 10, lines 47-51, col. 11, lines 31-55, col. 12, lines 14-19, col. 13, lines 12-col. 14, lines 40, col. 15, lines 39-41), wherein the method comprises:

distributing said news messages (col. 11, lines 31-col. 12, lines 38, col. 13, lines 40-48); and

receiving said news messages (col. 11, lines 31-col. 12, lines 38).

29. As to claim 45, **Fairchild** teaches the invention as claimed, wherein said process is a computational task executing on said node (col. 8, lines 5-23, col. 12, lines 14-58).

30. As to claim 46, **Fairchild** teaches the invention as claimed, wherein said distributing news messages comprises:

receiving said news messages from said process (col. 11, lines 31-col. 12, lines 38);

checking the validity of said news messages (col. 13, lines 12-48, col. 19, lines 10-25 [*checking/detecting which type of beacon messages belong to and whether the beacon message is from new NPD or old NPD*]);

saving valid news messages in said subscription database (col. 13, lines 12-39 [*saving/storing message in MST 405*]);

sending said valid news messages to said news loggers (col. 19, lines 10-25 [*sending a consolidated status information to management server*]);

waiting for acknowledgement signal from said news loggers (col. 9, lines 16-35);
and

sending said valid news messages to designated agents (col. 11, lines 31-55, col. 12, lines 14-19, col. 13, lines 12-col. 14, lines 40).

31. As to claim 47, **Fairchild** teaches the invention as claimed, wherein receiving said news messages from said process uses said news service (col. 11, lines 31-col. 12, lines 38).

32. As to claim 54, **Fairchild** teaches the invention as claimed, wherein said receiving news messages comprises:

receiving said news messages from said agents (col. 11, lines 31-col. 12, lines 38);

extracting incoming news messages (col. 13, lines 12-39);

checking the validity of said incoming news messages (col. 13, lines 12-48, col. 19, lines 10-25);

passing valid news messages to said distribution unit (col. 12, lines 14-col. 13, lines 48); and

distributing said valid news messages to a process (col. 19, lines 10-25).

33. As to claim 55, **Fairchild** teaches the invention as claimed, wherein receiving said news messages from said agents uses said receiving thread (figure 4, col. 11 lines 31-col. 13, lines 48).

34. As to claim 58, **Fairchild** teaches the invention as claimed, wherein initializing an agent comprises:

creating a subscription database (figure 4, col. 13, lines 12-48); and

registering at least a process for news services (col. 13, lines 12-39).

35. As to claim 59, **Fairchild** teaches the invention as claimed, wherein creating a database comprises allocating memory (figure 4, col. 11, lines 31-55). This feature deems to be inherent since **Fairchild** discloses the network participating device (NPD) having a database to store event message, thus it has to have a memory to store that event message.

36. As to claim 60, **Fairchild** teaches the invention as claimed, wherein registering a process for news services comprises that each said process register to at least one category in said database (figure 4, col. 13, lines 12-48).

37. As to claim 62, **Fairchild** teaches the invention as claimed, including a computer software product for handling news messages using a network comprising at least two agents, wherein each agent executes on a node, and at least two news loggers, said computer software product comprises: software instructions for enabling said network to perform predetermined operations, and a computer readable medium bearing the software instructions (abstract, figures 3-4, col. 8, lines 5-23, col. 10, lines 47-51, col. 11, lines 31-55, col. 12, lines 14-58, col. 13, lines 12-col. 14, lines 40, col. 15, lines 39-41), wherein said predetermined operations comprise:

distributing said news messages (col. 11, lines 31-col. 12, lines 38, col. 13, lines 40-48); and

receiving said news messages (col. 11, lines 31-col. 12, lines 38).

38. As to claim 94, **Fairchild** teaches the invention as claimed, including a computer system adapted for handling news messages, the computer system comprising: a network comprising at least two agents, wherein each agent executes on a node in the computer system, and at least two news loggers; a memory comprising software instructions adapted to enable the computer system to (abstract, figures 3-4, col. 8, lines 5-23, col. 10, lines 47-51, col. 11, lines 31-55, col. 12, lines 14-58, col. 13, lines 12-col. 14, lines 40, col. 15, lines 39-41): distribute said news messages (col. 11, lines 31-col. 12, lines 38, col. 13, lines 40-48); and receive said news messages (col. 11, lines 31-col. 12, lines 38).

39. Claims 31-40, 44, 48, 51-53, 56-57, 64-72, 76-80, 83-92, 96-104, 108-112, 115-124 have similar limitations as claims 2-13, 17-26, 45, 47, 55, 58-60; therefore, they are rejected under the same rationale.

Claim Rejections - 35 USC § 103

40. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.

Patentability shall not be negated by the manner in which the invention was made.

41. Claims 14-16, 41-43, 73-75, and 105-107 are rejected under 35 U.S.C. § 103 (a) as being unpatentable over **Fairchild et al.** (hereinafter Fairchild) U.S. Patent No. **6,343,320**, in view of **Chisholm** U.S. Patent No. **6,697,970**.

42. As to claim 14, **Fairchild** does not explicitly teach the invention as claimed; however, **Chisholm** teaches wherein data in said subscription database is organized as a category tree (col. 1, lines 45-col. 2, lines 3). It would have been obvious to one of ordinary skill in the Data Processing art at the time of the invention was made to combine the teachings of **Fairchild and Chisholm** to have data is organized as a category tree since such methods were conventionally employed in the art to allow the system to organize various elements (*such as NIC, hub, switch, router, etc.*) in a database MIB in order to provide easy access (*i.e., searching, updating*) to manage these elements.

43. As to claim 15, **Fairchild** does not explicitly teach the invention as claimed; however, **Chisholm** teaches wherein a category in said category tree comprises one or more subcategories (col. 1, lines 45-col. 2, lines 3, col. 5, lines 42-col. 6, lines 52). It would have been obvious to one of ordinary skill in the Data Processing art at the time of the invention was made to combine the teachings of **Fairchild and Chisholm** to have the same motivation as set forth in claim 14.

44. As to claim 16, **Fairchild** does not explicitly teach the invention as claimed; however, **Chisholm** teaches wherein a category in said category tree comprises a process list and a message list (col. 5, lines 42-col. 6, lines 52, col. 11, lines 21-37). It would have been obvious to one of ordinary skill in the Data Processing art at the time of the invention was made to combine the teachings of **Fairchild** and **Chisholm** to have the same motivation as set forth in claim 14.

45. Claims 41-43, 73-75, and 105-107 have similar limitations as claims 14-16; therefore, they are rejected under the same rationale.

46. Claims 19-20, 49-50, 81-82, and 113-114 are rejected under 35 U.S.C. § 103 (a) as being unpatentable over **Fairchild et al.** (hereinafter Fairchild) U.S. Patent No. 6,343,320, in view of **Feridun et al.** (hereinafter Feridun) U.S. Patent No. 6,336,139.

47. As to claim 19, **Fairchild** does not explicitly teach the invention as claimed; however, **Feridun** teaches wherein saving valid news messages in said subscription database comprises dropping an older news message with a newer news message if said database is full (col. 8, lines 15-45). It would have been obvious to one of ordinary skill in the Data Processing art at the time of the invention was made to combine the teachings of **Fairchild** and **Feridun** to have the feature of dropping older

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event message with a newer event message if said database is full because it would have an efficient communications system for maintaining, storing and updating and processing the event messages in database in order manner and making sure database has enough space to store new event messages.

48. As to claim 20, **Fairchild** does not explicitly teach the invention as claimed; however, **Feridun** teaches wherein dropping news messages is performed by a least recently used algorithm, a random algorithm, a first-in first-out algorithm, a time-to-live algorithm, or a round robin algorithm (col. 8, lines 15-67). It would have been obvious to one of ordinary skill in the Data Processing art at the time of the invention was made to combine the teachings of **Fairchild** and **Feridun** to have the feature of dropping news messages is performed by a least recently used algorithm, a random algorithm, a first-in first-out algorithm, a time-to-live algorithm, or a round robin algorithm because it would have provide an efficient communications system that can keep track, maintain and process the event messages in order manner.

49. Claims 49-50, 81-82, and 113-114 have similar limitations as claims 19-20; therefore, they are rejected under the same rationale.

50. Claims 27-28, 30, 61, 63, 93, 95, and 125 are rejected under 35 U.S.C. § 103 (a) as being unpatentable over **Fairchild et al.** (hereinafter Fairchild) U.S. Patent

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No. **6,343,320**, in view of **Brinnand et al.** (hereinafter Brinnand) U.S. Patent No. **6,430,616**.

51. As to claim 27, **Fairchild** does not explicitly teach the feature of providing historical information. However, **Brinnand** teaches wherein said agent is capable of providing historical information (figure 2, col. 4, lines 32-60 [*providing logging information*]). It would have been obvious to one of ordinary skill in the Data Processing art at the time of the invention was made to combine the teachings of **Fairchild and Brinnand** to have the feature of providing historical information since such methods were conventionally employed in the art to allow the system to manage, monitor, record and provide management information in the network.

52. As to claim 28, **Fairchild** does not explicitly teach querying database and sending query results. However, **Brinnand** teaches wherein providing historical information comprises: querying said subscription database; and sending the query results to said process (col. 4, lines 32-60). It would have been obvious to one of ordinary skill in the Data Processing art at the time of the invention was made to combine the teachings of **Fairchild and Brinnand** to have the same motivation as set forth in claim 27.

53. As to claim 30, **Fairchild** does not explicitly teach the invention as claimed; however, **Brinnand** teaches initializing each of said agents; and providing

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historical information (col. 4, lines 32-60). It would have been obvious to one of ordinary skill in the Data Processing art at the time of the invention was made to combine the teachings of **Fairchild and Brinnand** to have the feature of providing historical information since such methods were conventionally employed in the art to allow the system to manage, monitor, record and provide management information (i.e., historical information) in the network.

54. As to claim 61, **Fairchild** does not explicitly teach the invention as claimed; however, **Brinnand** teaches wherein providing historical information comprises: querying said subscription database; and sending query results to said process that requested the query (col. 4, lines 32-60). It would have been obvious to one of ordinary skill in the Data Processing art at the time of the invention was made to combine the teachings of **Fairchild and Brinnand** to have the feature of providing historical information since such methods were conventionally employed in the art to allow the system to manage, monitor, record and provide management information in the network.

55. Claims 63, 93, 95, and 125 have similar limitations as claims 27-28, 30, and 61; therefore, they are rejected under the same rationale.

Conclusion

56. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

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Chao et al. (USPN 5,964,837), Childress et al. (US. Pub. No. 2003/0078942), Stupek, Jr. et al. (USPN 6,526,442), Levesque et al. (US. Pub. No. 2004/0107277), Kekic et al. (USPN 6,272,537), Brunet et al. (USPN 6,430,613), Wilson et al. (USPN 6,714,976), Touboul (USPN 6,658,465), and Hellerstein et al. (US. Pub. No. 2002/0165842) are recited for disclosing various information related to the claimed invention. Applicants are requested to consider these prior art references when responding to this office action.

57. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thu Ha Nguyen, whose telephone number is (571) 272-3989. The examiner can normally be reached Monday through Friday from 8:30 AM to 5:00 PM.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain T. Alam, can be reached at (571) 272-3978.

Any inquiry of a general nature of relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-9600.

The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9306 for regular communications.

Thu Ha Nguyen

March 1, 2005


HOSAIN ALAM
PATENT EXAMINER